Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled).

2. (currently amended) An optical module ~~as set forth in claim 1~~ comprising:

a holder having an optical fiber mounting hole on one side in axial directions thereof, and a cylindrical portion on the other side in the axial directions thereof;

a ferrule fitted into the optical fiber mounting hole of the holder for mounting an optical fiber in the optical fiber mounting hole;

a photoelectric transfer element received in the cylindrical portion of the holder so as to engage therewith; and

a lens, arranged between the optical fiber mounting hole and cylindrical portion of the holder, for causing the optical fiber to be optically coupled with the photoelectric transfer element package, said lens having a smoothly curved surface which projects toward the photoelectric transfer element package,

wherein said lens and said holder are formed of a plastic so as to be integrated with each other,

wherein said photoelectric transfer element package has a flange portion which is bonded and fixed to an open end face of said cylindrical portion, and a gap is formed between an outer peripheral surface of said photoelectric transfer element package and an inner peripheral surface of said cylindrical portion, and

wherein a variation (Δd2) of a distance (d2) from a vertex of said lens to a focal point thereof in accordance with temperature change is substantially equal to a variation (ΔL) of an axial length (L) from the vertex of said lens to the open end face of said cylindrical portion in accordance with temperature change.

3. (currently amended) An optical module ~~as set forth in claim 1~~ comprising:

a holder having an optical fiber mounting hole on one side in axial directions thereof, and a cylindrical portion on the other side in the axial directions thereof;

a ferrule fitted into the optical fiber mounting hole of the holder for mounting an optical fiber in the optical fiber mounting hole;

a photoelectric transfer element received in the cylindrical portion of the holder so as to engage therewith; and

a lens, arranged between the optical fiber mounting hole and cylindrical portion of the holder, for causing the optical fiber to be optically coupled with the photoelectric transfer element package, said lens having a smoothly curved surface which projects toward the photoelectric transfer element package,

wherein said lens and said holder are formed of a plastic so as to be integrated with each other,

wherein said cylindrical portion has an open end portion which is bonded and fixed to said photoelectric transfer element package, and a gap is formed between an outer peripheral surface of said photoelectric transfer element package and an inner peripheral surface of said cylindrical portion, and

wherein a variation (Δd2) of a distance (d2) from a vertex of said lens to a focal point thereof in accordance with

temperature change is substantially equal to a variation (ΔL) of an axial length (L) from the vertex of said lens to a portion, in which said open end portion of said cylindrical portion is bonded and fixed to said photoelectric transfer element package, in accordance with temperature change.

4. (currently amended) An optical module ~~as set forth in claim 1~~ comprising:

a holder having an optical fiber mounting hole on one side in axial directions thereof, and a cylindrical portion on the other side in the axial directions thereof;

a ferrule fitted into the optical fiber mounting hole of the holder for mounting an optical fiber in the optical fiber mounting hole;

a photoelectric transfer element received in the cylindrical portion of the holder so as to engage therewith; and

a lens, arranged between the optical fiber mounting hole and cylindrical portion of the holder, for causing the optical fiber to be optically coupled with the photoelectric transfer element package, said lens having a smoothly curved surface which projects toward the photoelectric transfer element package,

wherein said lens and said holder are formed of a plastic so as to be integrated with each other,

wherein said cylindrical portion has an open end face which is bonded and fixed to said photoelectric transfer element package via an annular ring, and a gap is formed between an outer peripheral surface of said photoelectric transfer element package and an inner peripheral surface of said cylindrical portion, and

wherein a variation (Δd2) of a distance (d2) from a vertex of said lens to a focal point thereof in accordance with

temperature change is substantially equal to a variation (ΔL) of an axial length (L) from the vertex of said lens to a portion, in which said open end face of said cylindrical portion is bonded and fixed to said photoelectric transfer element package, in accordance with temperature change.

5. (currently amended) An optical module ~~as set forth in claim 1~~ comprising:

a holder having an optical fiber mounting hole on one side in axial directions thereof, and a cylindrical portion on the other side in the axial directions thereof;

a ferrule fitted into the optical fiber mounting hole of the holder for mounting an optical fiber in the optical fiber mounting hole;

a photoelectric transfer element received in the cylindrical portion of the holder so as to engage therewith; and

a lens, arranged between the optical fiber mounting hole and cylindrical portion of the holder, for causing the optical fiber to be optically coupled with the photoelectric transfer element package, said lens having a smoothly curved surface which projects toward the photoelectric transfer element package,

wherein said lens and said holder are formed of a plastic so as to be integrated with each other,

wherein said cylindrical portion has an open end portion which detachably engages said photoelectric transfer element package, and a gap is formed between an outer peripheral surface of said photoelectric transfer element package and an inner peripheral surface of said cylindrical portion, and

wherein a variation (Δd2) of a distance (d2) from a vertex of said lens to a focal point thereof in accordance with temperature change is substantially equal to a variation (ΔL) of

an axial length (L) from the vertex of said lens to a portion, in which said open end portion of said cylindrical portion engages said photoelectric transfer element package, in accordance with temperature change.

6. (original) An optical module as set forth in claim 5, wherein one of said open end portion of said cylindrical portion and said photoelectric transfer element package has a protrusion, and the other of said open end portion of said cylindrical portion and said photoelectric transfer element package has a recessed portion engageable with said protrusion.

7. (currently amended) An optical connector comprising:

an optical module as set forth in any one of claims ~~1~~ 2 through 6; and

a housing for receiving and holding therein said optical module.